

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

We claim:

1. (Currently amended) A method for forming splines on a metallic tube, comprising the steps of: (a) providing a metallic tube composed of Aluminum Association 2000, 5000, 6000, or 7000 series aluminum alloy and having properties corresponding to T4 temper; (b) heating said metallic tube to a temperature sufficient to remove the T4 temper; (c) quenching said metallic tube; (d) forming splines on said metallic tube; and (e) artificially aging said metallic tube.
2. (Cancelled)
3. (Currently amended) The method of claim 1 ~~in which (a) includes selecting an~~ the aluminum alloy is selected from the group consisting of 6013, 6061 and 6063; 7003, 7108 and 7029.
4. (Currently amended) The method of claim 1 in which (a) includes providing tube formed by extrusion.
5. (Original) The method of claim 1 in which (a) includes providing a drawn seamless tube.

6. (Original) The method of claim 1 in which (a) includes providing a tube formed from an elongated sheet product that is rolled in a circular configuration and then welded to form a tube.
7. (Original) The method of claim 1 in which (b) includes heating said metallic tube to a temperature between about 650° to about 1,000°F.
8. (Original) The method of claim 1 in which (b) includes heating said metallic tube in an electric induction furnace.
9. (Original) The method of claim 1 in which (b) includes heating said metallic tube in an induction coil.
10. (Original) The method of claim 1 in which (b) includes heating a said metallic tube in an induction coil that covers at least 90% of the length of said metallic tube.
11. (Original) The method of claim 1 in which (b) includes rotating said metallic tube during the heating process.
12. (Original) The method of claim 1 in which (b) includes heating only a section of said metallic tube.
13. (Original) The method of claim 1 in which (b) includes heating two or more sections of said metallic tube and there is a non-heated section between said two or more sections.

14. (Original) The method of claim 1 in which (c) includes quenching said metallic tube.

15. (Original) The method of claim 1 in which (c) includes quenching said metallic tube to temperatures approaching and to room temperature.

16. (Original) The method of claim 1 in which (c) includes quenching said metallic tube in a tank having a temperature less than about 212°F.

17. (Original) The method of claim 1 in which (c) includes quenching said metallic tube includes immersion quenching, spray quenching and mist quenching.

18. (Original) The method of claim 1 in which (c) includes quenching said metallic tube using a quenchant solution selected from the group consisting of water, polymer, air, gaseous quenchants and combinations thereof.

19. (Original) The method of claim 1 in which (d) includes forming said splines within 16 hours of said quenching if said metallic tubes are stored at room temperature.

20. (Original) The method of claim 1 in which (d) includes forming said splines within 8 hours of said quenching if said metallic tubes are stored at room temperature.

21. (Original) The method of claim 1 in which (d) includes cooling said quenched metallic tube

below room temperature to retard natural aging.

22. (Original) The method of claim 1 in which (e) includes aging said tube at a temperature of at least 300°F for at least 5 hours.